



**The Necessity Of Internal Audit As A Procedure Of Effective Financial  
Management In A Public Organization Of Healthcare Services: Case Study In  
Hospitals Of 3 & 4 Health County Of Macedonia And Thrace**

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***Abstract***

**This project relates to Internal Audit, as a necessary process of an efficient financial management in a public organization which provides health services. Specifically, the study focused on hospitals of 3 & 4 Health County of Macedonia and Thrace (Y.PE).**

**This paper presents the concept, the necessity and the most important international Models of Internal Audit and clarifies the essential theoretical content of Audit. Then it refers to the branch of public health units and to the law 4025/11 which defines the Internal Audit legislated to our country hospitals.**

**Subsequently, the methodology of research conducted is analytically presented together with the commentary of key findings and research results and the necessary correlations.**



**The paper concludes with a summary of the major findings of the survey and a list of proposals concerning the necessity of Internal Audit as a tool for rational financial management and improvement of all the individual functions of a public health unit.**

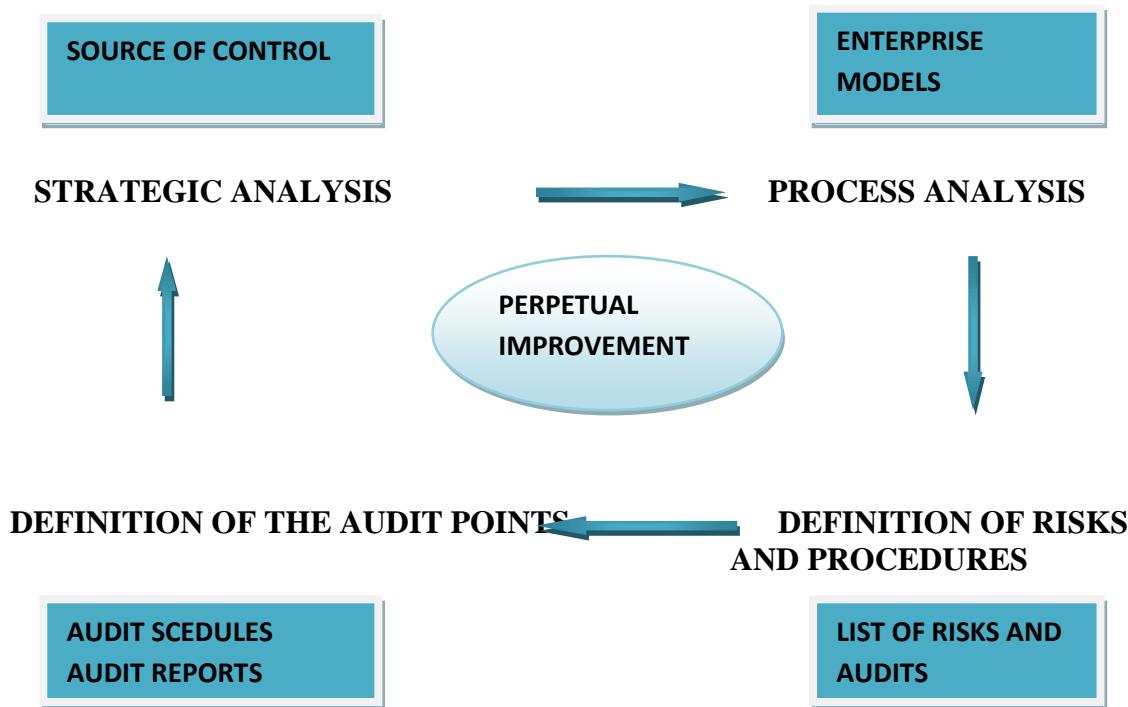
***Intex Terms - Internal audit, financial management, public health service organizations, effectiveness, internal audit models.***

## **Introduction**

In this intricate current reality, audit place a discreet but vital role as a deterrent to unwanted phenomena. Papastathis (2003) concluded that this procedure in a contemporary organization is called Internal Audit, which acts supplementary as a consultant without substituting the managers and comprises a necessary tool of effective administration contributing in its own way to growth by eliminating any risks.

According to the definition of Internal Auditors Institution, Internal Audit is an independent, objective, reassuring and consulting entity aiming at adding value and enhancing the functions of an organization. Ibrahim and Sayed (2011) stipulated in their latest article that Internal Audit contributes to the achievement of goals by adopting a systematic and disciplined approach in order to assess and improve the effectiveness of risk management of the audit and administration process.

The methodology of Internal Audit in an enterprise or organization is as follows (Panayiotou et al., 2008,p.46).



### 1.1 The Methodology of Internal Audit

#### The necessity of Internal Audit

The necessity of Internal Audit is evident because of the imperfections and flaws of human nature and morality. Embezzlements, frauds and unscrupulous activities are part of this nature. Since it is impossible to eliminate those flaws whatever means is used, the only effective way is through Internal Audit in order to contain them as much as possible.



## **International Models of Internal AUDIT**

### **C.O.S.O Model (Committee of Sponsoring Organizations)**

According to the C.O.S.O Committee, the system of Internal Control consists of a number of processes which are controlled by the board of directors, the central Administration and the rest of the personnel of the organization. These processes are aiming at a rational confirmation regarding the achievement of the enterprise goals in the following categories:

- ▶ Effectiveness and performance of enterprise functions.
- ▶ Reliability of financial reports.
- ▶ Compliance to the laws and regulations.

### **C.O.C.O Model (Canadian Criteria of Control Committee)**

One more form of Internal Audit with distinctive similarities and differences to the previous model. It focuses on the reliability of those reports published by the central Administration after subjecting them to Internal Audit and the management of risks involved. More specifically, it dictates that the sources, systems, procedures, culture of the enterprise, its structure and different aspects of it which altogether play an auxiliary role to the executives, help them realize the goal of the organization (Hunton et al., 2004,p.114).

### **CADBURY Model**

Published by the committee Financial Aspects of Corporate, Chartered Accountants Institute in England and Wales. Cadbury initially defines Internal Audit as an integral system of financial and other audits, which are defined to provide with security regarding:

- ▶ Effective functions.
- ▶ Internal financial audits.
- ▶ Compliances to laws, regulations and policies of each individual company.

### **C.O.B.I.T Model (Control of Business Information Technology)**

The control of information technology of the corporations is one more field of Internal Audit. It focuses on the correlation between Internal Audit and information technology and is used by



managers, entrepreneurs and auditors. It defines the audit as an entity of different practices, policies, procedures and organizational structures, planned to secure that the enterprise goals will be achieved and whatever adversities will be overcome, eliminated or corrected. The four main fields of this model are:

- ▶ Plan & Organize
- ▶ Acquire & Implement
- ▶ Deliver & Support
- ▶ Monitor & Evaluate

## E.F.Q.M EXCELLENCE MODEL

It points out the improvement of its efficacy by analyzing the internal organization and its procedures. One way of achieving that is by using a complete model which helps the organization diagnose its condition and develop those functions which will lead to excellence.

The E.F.Q.M. is one of the most common business models in Europe which is implemented in several organizations. In the heart of this model, lies RADAR methodology which consists of the following elements:

- ▶ Results
- ▶ Approach
- ▶ Deployment
- ▶ Assessment and Review

## **The field of public healthcare services**

An interesting view was expressed by Zopounidis that “the basic problems of National Healthcare System, lies in the way its hospitals are organized and function and more specifically in the management of materials and human sources, together with the lack of correct national strategy planning, as far as social security, hospital funding, establishment of Internal Audit systems and the setting of quality standards regarding the provided healthcare services” (Zopounidis, 2007,p.36).

Healthcare in our country and especially in the future hospitals copes with a variety of challenges: new organizational schemes, modern funding methods, redefining of the provision and use of sources, unpredictable changes of direction and hospital services and so on. The



public hospital needs to be transformed from political entities to enterprises (Kyriopoulos et al., 2000, p.98).

Moreover the ever increasing demands of our citizens for a reliable, safe and effective health system, together with the need for the control of the cost, financial transparency, unit autonomy, are only some of the reasons forcing hospitals to seek flexible and effective management systems (Hanson, 2011, p.32).

Kyriopoulos (2011) concluded that “the introduction of a modern health management which includes goals of effectiveness, measures to control the cost, reallocation of human sources, implementation of quality control and procedures of Internal Audit is absolutely necessary for our National Healthcare System”.

## **Research methodology**

The research of this study was conducted according to primary or secondary research. The secondary research covered the fields of external sources in fields such as Audit, Financial Management, Accounting and Internal Audit. The primary research was conducted by using an open-ended questionnaire which was structured according to the goals of this study and distributed on-line to the Financial Managers of the 29 hospitals of the 3<sup>ed</sup> & 4<sup>th</sup> Health County of Macedonia and Thrace (table 5.1) and to the Internal Auditors.

Table 5.1: Hospitals of the 3<sup>ed</sup> & 4<sup>th</sup> Health County of Macedonia and Thrace

HOSPITALS OF THE 3 <sup>ED</sup> HEALTH COUNTY OF MACEDONIA AND THRACE	HOSPITALS OF THE 4 <sup>RTH</sup> HEALTH COUNTY OF MACEDONIA AND THRACE
G.H. G.PAPANIKOLAOU	P.G.H. AXEPA
G.H. G. GENNHMATAS	G.H. IPPOKRATEIO
G.H. AGIOS DIMITRIOS	G.H. AGIOS PAVLOS



PSYCHIATRIC HOSPITAL OF THESSALONIKI	THEAGENIO CANCER HOSPITAL
G.H. VEROIAS	G.H. KILKIS
G.H. EDESSAS	G.H. GOYMENISSAS
G.H. NAOYSAS	G.H. CHALKIDIKIS
G.H. GIANNITSON	G.H. SERRON
G.H. KASTORIAS	G.H. KAVALAS
G.H. KOZANIS	G.H. DRAMAS
G.H. FLORINAS	G.H. XANTHIS
G.H. PTOLEMAIDAS	G.H. KOMOTINIS SISMANOGLEIO
G.H. GREVENON	G.H. ALEXANDROUPOLIS
G.H. KATERINIS AND PSYCHIATRIC SECTOR	G.N DIDYMOTEICHOU
G.H. PAPAGEORGIOU	

Out of the 29 questions posed the questionnaire, 21 of them were addressed to the Financial Managers and the rest 8 of them to the Internal Auditors of the hospitals. Out of the 58 questioners, dispatched (two to each one of the 29 hospitals) 54 were answered. More specific, 27 questioners were answered by the Financial Managers and the Internal Auditors. We should point out that in 2 out of the 29 hospitals, no Audit took place despite the fact that the Internal Auditors were assigned to do so. Consequently, due to the high percentage of participation in this procedure the research result are considered typical.

## **Recording and analysis of the results**

Answering to the question whether there are recorded procedures in the financial services of hospitals, just a 33% of the public hospitals in this current research has got a recorded system of



procedures which is particularly disturbing. A 67% of public hospitals does not have a recorded system of procedures. It is clear that there is a substantial malfunction and evidently this delay of adaptation of public hospital in those fields is very important since this adaptation acts as prevention and not as cure.

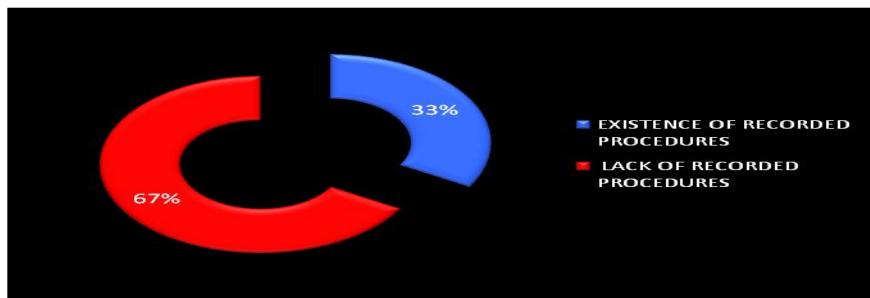


Chart 6.1: Existence of recorded or lack of recorded procedures in financial department of hospital.

In the question whether there is a rotation of posts among the staff of the hospital accountancy, so that no individual is fully responsible for the total management of a task, just 19% of those asked answered positively. A 37% answered that this rotation only took place in limited departments and a 44% answered that there was no rotation of post whatsoever. This means that each member of staff undertakes a task and has full responsibility for it, which increases the risk of errors whether intentional or unintentional since the cooperation of at least two members of staff for the completion of a financial task is not deemed necessary.

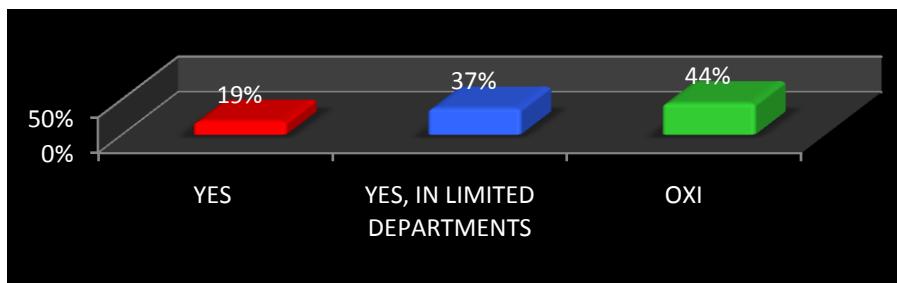




Chart 6.2: The existence of rotation of posts among the staff of accountancies

A 76% of the Financial Managers answered that the report of Internal Auditors included recommendations for the improvement of the financial services of the hospital, while a 24% answered that those reports do not include any substantial recommendations. Some of them reported that those recommendations where only addressed to the hospital administration but not to them. So the submission of recommendations by the Internal Auditors regarding the improvement of the operation of the hospitals financial services only proves how important the role of Internal Audit is on a preventive level.

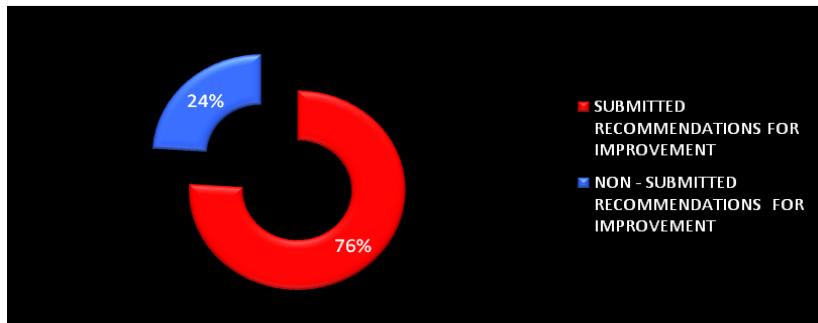


Chart 6.3: Depiction of submitted recommendations by the Internal Auditors regarding the improvement of financial departments.

A 12% of the financial managers does not want to answer whether the Internal Auditors recommendations have improved the financial management of the hospitals. A 16% of those questioned, believes that those recommendations slightly improve the financial management of the hospitals. A 47% believes that the recommendations of the Internal Auditors fairly improve the financial management and just 24% believes that those recommendations greatly improve the financial management of the hospitals. It is worth noting that the institution of Internal Audit is only recent (introduced by law 4025/2011), and therefore it has not been fully incorporated in the mentality of the hospitals.

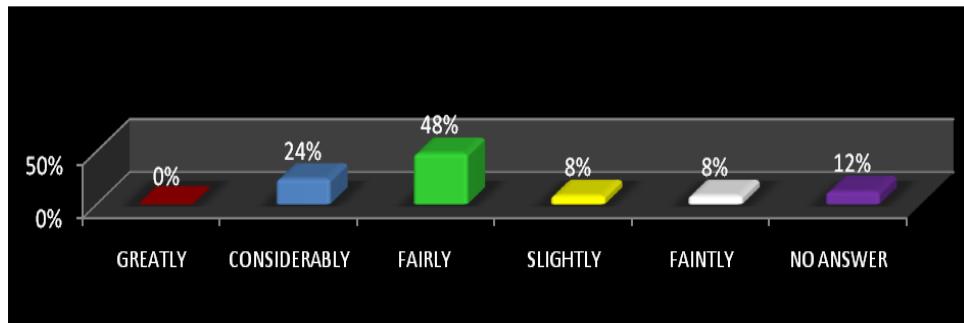


Chart 6.4: Depiction of the extent of improvement of the financial management from the recommendations of Internal Auditors.

To the question of which model of Internal Audit the Auditors use, a 59% of the Internal Auditors answered that it implemented the C.O.S.O. model, a 4% the model E.F.Q.M, a 7% the combination of C.O.S.O. & E.F.Q.M. and the rest 30% implemented some other model which is usually a combination of the models mentioned above. The C.O.S.O. model is the dominant one, according to the answers of Internal Auditors, but it must be pointed out that one of the questioned auditors who implemented this particular model had already signed a contract and had already completed the audit for the year 2012 in 12 out of 27 hospitals of our study. The implementation of this model by this particular auditor in those 12 hospitals, automatically contributes to the highest percentage (59%).

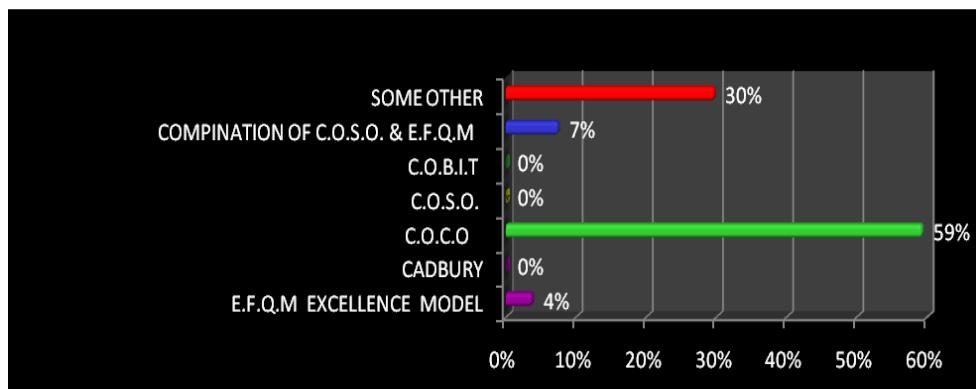




Chart 6.5: Depiction of implemented Models of Internal Audit

One can observe on table 6.6, the degree of correlation of the models above to the types of audits implemented, and can conclude that the combination of models C.O.S.O & E.F.Q.M. is the one with the excellent correlations ( $r = 1$ ) to all types of audits. This renders it as the most appropriate model of Internal Audit for hospitals.

Table 6.6: Degrees of correlation of Internal Audit models to types of audit

TYPES OF AUDIT	GENERAL	SPECIFIC	PREVENTIVE	RESTRICTIVE	PERMANENT	REGULAR	CONTINGENT
$r$	1,00	1,00	1,00	1,00	1,00	1,00	1,00

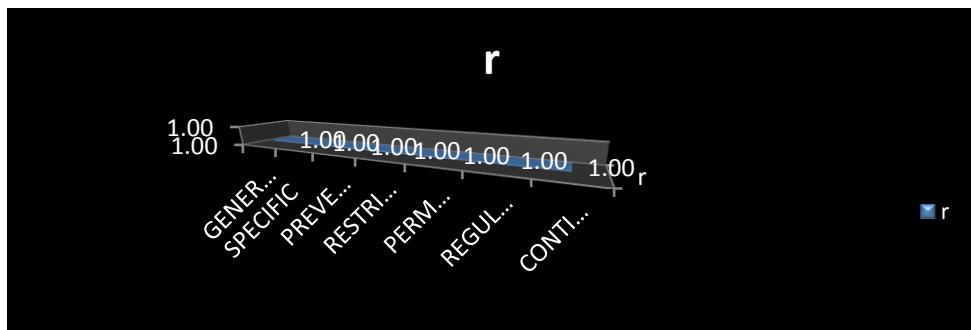


Chart 6.7: Depiction of coefficient correlation Pearson ( $r$ ) between models C.O.S.O. & E.F.Q.M and completed audits.

## Conclusions

Firstly, as far as the structure of the financial departments of the hospitals is concerned it can be concluded that there is an inexcusable lack of the financial departments.

As for the members of staff of the financial departments it has been noted that the accountancies of hospitals employ personnel of different educational background and level. The variety of the educational level of those members creates the necessary ground for the growth of long-life learning programs for the development of the skills of both old and new employees so that their mentality and attitude be changed.



There is also a need for modernization of computing systems in hospitals since the current hospital computing system does not provide with full and overall coverage of all the functional departments of the units. The only way that this can be achieved is by implementing an integral computing system, managing the E.R.R (Enterprise Resource Planning).

Regarding the recorded procedures in the financial departments of the hospitals it can be concluded that most of the hospitals of the 3ed & 4th Y.PE lack recorded procedures, something which shows the malfunction of those units and obstructs the work of Internal Auditors. Consequently, due to this lack they cannot acquire certificate of standardization.

The necessity of Internal Audit in public hospitals is evident due to the fact that in most hospitals of our survey there is no rotation of posts in their accountancies so that no individual can be held accountable for the completion of a task. Also this fact constitutes a negative factor in the development of knowledge in the workplace since the employees are not given the opportunity to obtain full work experience in all its functions in the accountant department.

The hospital financial departments conduct regular audits in cash flow, in material and drug depots and the tax payments, but they miss the regular audit of the doubtful debt. This can cause serious problems to the hospital budgets. Furthermore, just 4 out of 27 hospitals audited, use financial ratios, for the audit of their credit and debit ability. It can be concluded that hospital financial departments possibly ignore the usefulness of the data that can be collected by their implementation (for example: the assessment of the viability of a unit, its value, its effectiveness of investment plan, its default outlook etc) in order for their Administration to conduct strategic planning.

Regarding the Internal Audit models implemented by Internal Auditors of the hospitals in our survey it is clear that there is not one single common model, but the model C.O.S.O. prevails upon all the others. Obviously most of the Internal Auditors (52% of them) are very satisfied with the model of Internal Audit they have adopted and used in the hospitals. Some of them, (33%) deem the implemented model fairly satisfactory regarding the expected results for the rational financial management of their hospital.

In conclusion, the combination of models C.O.S.O & E.F.Q.M is regarded as the most appropriate in dealing with all the factors of an Internal Audit mechanism and finally their implementation is deemed absolutely necessary on the condition that the necessary changes are made, the level of education of its users is improved and the administrations of the hospitals of our country believe in it.



## **Recommendations**

According to the results, their analysis and commendation the following recommendations can be made, which can improve the operation of the hospital financial departments, reinforce the effectiveness on Internal Audit by opting for the most appropriate model of Internal Audit and attribute to the full acceptance of its necessity, as a tool of rational financial management and enhancement of all its subsequent functions in a public hospital.

The summary of those recommendations is a follows:

- ▶ Autonomy of the financial departments of hospitals.
- ▶ Introduction of long life learning programs in the financial, administration, medical and nursing departments of a hospital so that all public hospitals can gradually evolve into “learning organizations”.
- ▶ Introduction of new computing systems or upgrading of the existant and the training of their users.
- ▶ Recording of procedures of all aspects of their financial management and definition of duties for all posts, and finally actions for the acquisition of standardization of the financial departments.
- ▶ Use of financial ratios for the control of the debit and credit ability of the hospital units, aiming at strategic planning for the administrations.
- ▶ Briefing of the administrations regarding the role, responsibilities, importance and necessity of Internal Audit and efforts to incorporate Internal Audit to the culture of public hospitals.
- ▶ Submission of the reports of the Internal Auditors to an independent authority and not just the hospital administrators.
- ▶ Implementation of the combination of models Internal Audit C.O.S.O & E.F.Q.M, since this combination is distinguished for its impeccability and contributes gravely to the rational financial management of hospital.
- ▶ Focus of Internal Audit not only on financial audits but mostly on the improvement of the hospital procedures.
- ▶ Full use of the report of the Internal Auditors by the hospital administrations towards the right directions.



- ▶ Creation of a task force for the monitoring of the implementation of the recommendations made by the Internal Auditor and evaluation of their results.

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